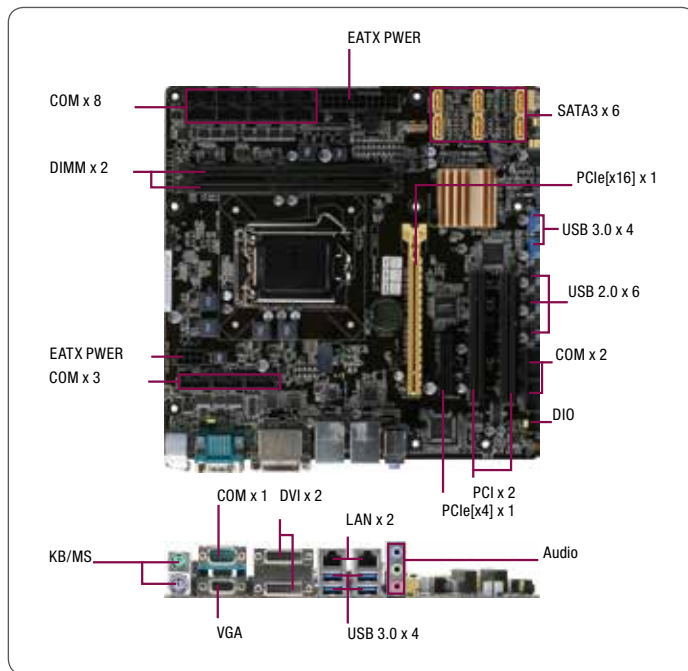


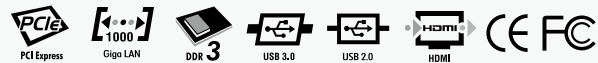
# IMBM-Q87B

Micro-ATX Industrial Motherboard with Intel® 4th Generation LGA1150 Processor, 14COM & 14USB



## Features

- LGA 1150 Socket For Intel® 4th Generation Core™ i Series 22nm Processor
- Three Independent Display: VGA, DVI-D x 2, DP
- SATA 6.0Gb/s x 6, USB 3.0 x 4, USB 2.0 x 10
- COM x 14
- TPM Onboard



## Specifications

System	
Form Factor	Micro ATX
Processor	Intel® 4th Generation Core™ i7/ i5 /i3 22nm LGA 1150 socket Processor
Chipset	Intel® Q87 Express Chipset
System Memory	240-pin DIMM x 2, Max. 16GB, DDR3 1333/1600 MHz Non-ECC, Un-buffered Memory Dual channel memory architecture
I/O Chipset	Fintech F81866D (5 COM)x1 + Fintech F81216HD (8 COM) x 2
Ethernet	Intel® PHY I217LM Giga LAN (support AMT 9.0) x 1 Intel® I211AT Gigabit LAN x 1 RJ45 x 2
BIOS	128Mbit Flash ROM, AMI BIOS
Wake On LAN / PXE	Yes (WOL/PXE)
Watchdog Timer	1~255 step by software program
TPM	TPM onboard (Infineon SLB9635)
H/W Monitor	Temperature Monitor on CPU/Chassis Voltage Monitor on Vcore/5V/12V Fan Monitor on CPU/Chassis
Expansion Interface	PCIe 3.0/2.0 [x16] Slot x 1, PCIe 2.0 [x4] Slot x 1 PCI x 2
Battery	Lithium battery
Power Requirement	1 x 24-pin ATX connector 1 x 8-pin (2x4) ATX 12V Power connector
Power Consumption	—
Broad Size	9.6" x 9.6" (244mmx244mm)
Gross Weight	—
Operating temperature	32°F ~140°F (0°C ~60°C)
Storage temperature	-40°F ~185°F (-40°C ~85°C)
Operating Humidity	0% ~ 90% R/H, non-condensing
MTBF	—
Smart Fan Control	CPU Fan x 1 / Chassis Fan x 1
Audio	Realtek® ALC887 6-Channel High Definition Audio CODEC
Power State	S3, S4, S5
Display	
Graphics Engine	Intel® Graphics Media Accelerator
Resolution	VGA: Up to 1920 x 1200 @60Hz DVI: Up to 1920 x 1200 @60Hz (DVI-D) Display Port: Up to 3840 x 2160 @60Hz
Output Interface	VGA x1, DVI-D x2, DP(int.) x1 VGA+DVI1, VGA+DVI2, DVI1+DVI2, VGA+DP, DP+DVI1, DP+DVI2, VGA+DVI1+DVI2, VGA+DP+DVI1, VGA+DP+DVI2

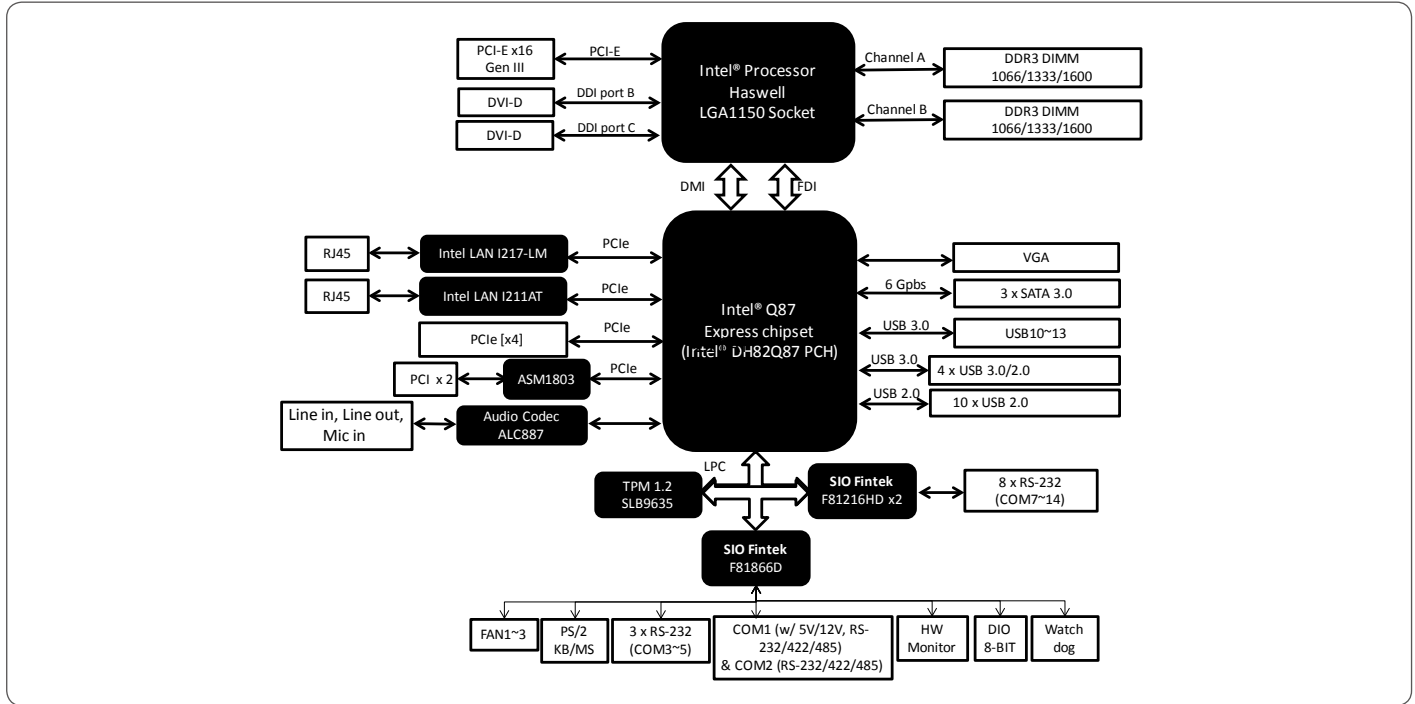
I/O	
Storage	SATA 6.0 Gb/s ports (180 degree) x6
Serial Port	RS-232/422/485 x1 (COM1, w/ 5V/12V) RS-232/422/485 box header (COM2) x1 RS-232 box header x12
Parallel Port	no
USB	USB 3.0 x 4 (Rear I/O) USB 2.0 connectors x5 support additional 10 USB ports
DIO	8 bit Digital I/O x 1 (In/Out programmable)
PS/2 Port	PS/2 Keyboard Connector x1 PS/2 Mouse Connector x1
Audio I/O	Audio Jack x3: Line-in, Mic-in, Line-out
FAN	CPU Fan connector(s) (4-pin) x1 Chassis Fan connector(s) (4-pin) x2

## Packing List

- SATA 6G Cable (7P, 180;90, 500MM) 2 in 1
- 17001100260  
COM Cable (4P, 260mm, P=2.54mm w/bracket)
- I/O Shield
- Product CD
- IMBM-Q87B

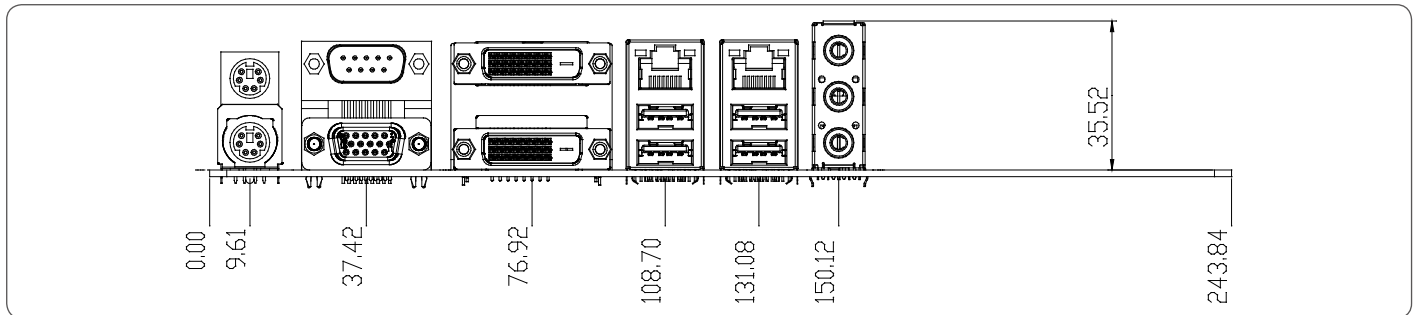
# IMBM-Q87B

## Block Diagram



## Dimension

Unit: mm



## Ordering Information

Part Number	CPU	RAM	Fan/Fanless	Display	Storage	LVDS	LAN	USB	RS-232	RS-232/422/485	Expansion Slot	Power	TPM	Temp.
TBD	Socket LGA1150	DIMM	Fan	VGA, DVI x 2, DP	SATA 6Gb/s x 4	—	GbE x 2	USB3.0 x 4, USB2.0 x 10	12	COM1 (w/ 5V/12V) COM2	PCI-E [x16] x 1, PCI-E [x4] x 1, PCI x 2	ATX	Onboard	0~60°C

## Optional Accessories

- **1759200172**  
CPU Cooler (2-Ball, Screw with Retention Plate)
- **1709070800**  
SATA Cable
- **1709100330**  
USB 2.0 Cable (9P, 330MM, p=2.54mm, w/bracket)
- **170910020K**  
USB 2.0 Cable (9P, 200MM, p=2.54mm, w/o bracket)
- **175921156B**  
CPU Cooler (2-Ball, Push-pin Type)